

S. S. PAPADOPULOS & ASSOCIATES, INC. ENVIRONMENTAL & WATER RESOURCE CONSULTANTS

INVOICE

Client:

US Environmental Protection Agency

RTP Finance Center

(AA216-01)

109 TW Alexander Drive

Durham, NC 27711

Mr. Daniel Olsson

Invoice #: 23970

Date: 1/12/2022

Project Name: EPA R5: Hydrogeologic

Synthesis & Modeling

Support

Project #: 1725

Comments:

GSA Contract #GS-10F-0462M Order No.: 68HE0520F0029 Remit Payment To:

S. S. Papadopulos & Associates, Inc.

1801 Rockville Pike - Suite 220

Rockville, MD 20852 Phone: (301) 718-8900

For Services Rendered Through 12/31/2021

001-01-10 - 0001AA-Ottawa Township Flat Glass Superfund Alternative Site

Professional Services

Employee Type	Hours	Rate	Amount
Principal			
Tonkin, Matthew J			\$578.25
Associate			
Neville, Christopher			\$1,637.55
Sr. Project Hydrogeologist/Sci			
Sorel, Dominique			\$2,196.15
Labor Subtotal		102.000.00	\$4,411.95
Item Subtotal		Cate deleted on the	\$4,411.95

002-01-10 - 0001AB-Union Carbide Corporation Superfund Site

Professional Services

Employee Type Hours Rate Amount

Associate		
Spiliotopoulos, Alexandros		\$363.90
Technician/Draftsperson		
Pekoske, Kristen M		\$77.10
Labor Subtotal	***************************************	\$441.00
Item Subtotal	***************************************	\$441.00

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\$146.41

\$1,390.90

003-01-10 - 0001AC-St. Regis Paper Company Superfund Site

Professional Services

Perozo, Erica L. DiFilippo

Sorel, Dominique

Associate Spiliotopoulos, Alexandros Technician/Draftsperson Pekoske, Kristen M Labor Subtotal Item Subtotal O04-00-10 - 0001AD-Pristine Superfund Site Professional Services Employee Type Sr. Project Hydrogeologist/Sci Perozo, Erica L. DiFilippo Prj. Hydrogeologist/Sci. Karanovic, Zdravka Staff Hydrogeologist/Sci. Adams, Glen Technician/Draftsperson Pekoske, Kristen M Labor Subtotal Item Subtotal O05-01-10 - 0001AE-Chemical Recovery Systems Superfund Site Professional Services			
Spiliotopoulos, Alexandros Technician/Draftsperson Pekoske, Kristen M Labor Subtotal Item Subtotal 004-00-10 - 0001AD-Pristine Superfund Site Professional Services Employee Type Sr. Project Hydrogeologist/Sci Perozo, Erica L. DiFilippo Prj. Hydrogeologist/Sci. Karanovic, Zdravka Staff Hydrogeologist/Sci. Adams, Glen Technician/Draftsperson Pekoske, Kristen M Labor Subtotal Item Subtotal 005-01-10 - 0001AE-Chemical Recovery Systems Superfund Site Professional Services	Hours	Rate	Amount
Technician/Draftsperson Pekoske, Kristen M Labor Subtotal Item Subtotal 004-00-10 - 0001AD-Pristine Superfund Site Professional Services Employee Type Sr. Project Hydrogeologist/Sci Perozo, Erica L. DiFilippo Prj. Hydrogeologist/Sci. Karanovic, Zdravka Staff Hydrogeologist/Sci. Adams, Glen Technician/Draftsperson Pekoske, Kristen M Labor Subtotal Item Subtotal 005-01-10 - 0001AE-Chemical Recovery Systems Superfund Site Professional Services			
Pekoske, Kristen M Labor Subtotal Item Subtotal 004-00-10 - 0001AD-Pristine Superfund Site Professional Services Employee Type Sr. Project Hydrogeologist/Sci Perozo, Erica L. DiFilippo Prj. Hydrogeologist/Sci. Karanovic, Zdravka Staff Hydrogeologist/Sci. Adams, Glen Technician/Draftsperson Pekoske, Kristen M Labor Subtotal Item Subtotal 005-01-10 - 0001AE-Chemical Recovery Systems Superfund Site Professional Services			\$1,273.65
Item Subtotal 004-00-10 - 0001AD-Pristine Superfund Site Professional Services Employee Type Sr. Project Hydrogeologist/Sci Perozo, Erica L. DiFilippo Prj. Hydrogeologist/Sci. Karanovic, Zdravka Staff Hydrogeologist/Sci. Adams, Glen Technician/Draftsperson Pekoske, Kristen M Labor Subtotal Item Subtotal 005-01-10 - 0001AE-Chemical Recovery Systems Superfund Site Professional Services			
Item Subtotal 004-00-10 - 0001AD-Pristine Superfund Site Professional Services Employee Type Sr. Project Hydrogeologist/Sci Perozo, Erica L. DiFilippo Prj. Hydrogeologist/Sci. Karanovic, Zdravka Staff Hydrogeologist/Sci. Adams, Glen Technician/Draftsperson Pekoske, Kristen M Labor Subtotal Item Subtotal 005-01-10 - 0001AE-Chemical Recovery Systems Superfund Site Professional Services			\$96.38
O04-00-10 - 0001AD-Pristine Superfund Site Professional Services Employee Type Sr. Project Hydrogeologist/Sci Perozo, Erica L. DiFilippo Prj. Hydrogeologist/Sci. Karanovic, Zdravka Staff Hydrogeologist/Sci. Adams, Glen Technician/Draftsperson Pekoske, Kristen M Labor Subtotal Item Subtotal 005-01-10 - 0001AE-Chemical Recovery Systems Superfund Site Professional Services			\$1,370.03
Professional Services Employee Type Sr. Project Hydrogeologist/Sci Perozo, Erica L. DiFilippo Prj. Hydrogeologist/Sci. Karanovic, Zdravka Staff Hydrogeologist/Sci. Adams, Glen Technician/Draftsperson Pekoske, Kristen M Labor Subtotal Item Subtotal 005-01-10 - 0001AE-Chemical Recovery Systems Superfund Site Professional Services		5305539	\$1,370.03
Employee Type Sr. Project Hydrogeologist/Sci Perozo, Erica L. DiFilippo Prj. Hydrogeologist/Sci. Karanovic, Zdravka Staff Hydrogeologist/Sci. Adams, Glen Technician/Draftsperson Pekoske, Kristen M Labor Subtotal Item Subtotal 005-01-10 - 0001AE-Chemical Recovery Systems Superfund Site Professional Services			
Sr. Project Hydrogeologist/Sci Perozo, Erica L. DiFilippo Prj. Hydrogeologist/Sci. Karanovic, Zdravka Staff Hydrogeologist/Sci. Adams, Glen Technician/Draftsperson Pekoske, Kristen M Labor Subtotal Item Subtotal 005-01-10 - 0001AE-Chemical Recovery Systems Superfund Site Professional Services			
Perozo, Erica L. DiFilippo Prj. Hydrogeologist/Sci. Karanovic, Zdravka Staff Hydrogeologist/Sci. Adams, Glen Technician/Draftsperson Pekoske, Kristen M Labor Subtotal Item Subtotal 005-01-10 - 0001AE-Chemical Recovery Systems Superfund Site Professional Services	Hours	Rate	Amount
Prj. Hydrogeologist/Sci. Karanovic, Zdravka Staff Hydrogeologist/Sci. Adams, Glen Technician/Draftsperson Pekoske, Kristen M Labor Subtotal Item Subtotal 005-01-10 - 0001AE-Chemical Recovery Systems Superfund Site Professional Services			
Karanovic, Zdravka Staff Hydrogeologist/Sci. Adams, Glen Technician/Draftsperson Pekoske, Kristen M Labor Subtotal Item Subtotal 005-01-10 - 0001AE-Chemical Recovery Systems Superfund Site Professional Services			\$1,098.08
Staff Hydrogeologist/Sci. Adams, Glen Technician/Draftsperson Pekoske, Kristen M Labor Subtotal Item Subtotal 005-01-10 - 0001AE-Chemical Recovery Systems Superfund Site Professional Services			
Adams, Glen Technician/Draftsperson Pekoske, Kristen M Labor Subtotal Item Subtotal 005-01-10 - 0001AE-Chemical Recovery Systems Superfund Site Professional Services			\$1,330.50
Technician/Draftsperson Pekoske, Kristen M Labor Subtotal Item Subtotal 005-01-10 - 0001AE-Chemical Recovery Systems Superfund Site Professional Services			
Pekoske, Kristen M Labor Subtotal Item Subtotal 005-01-10 - 0001AE-Chemical Recovery Systems Superfund Site Professional Services			\$103.54
Labor Subtotal Item Subtotal 005-01-10 - 0001AE-Chemical Recovery Systems Superfund Site Professional Services			
Item Subtotal 005-01-10 - 0001AE-Chemical Recovery Systems Superfund Site Professional Services			\$96.38
005-01-10 - 0001AE-Chemical Recovery Systems Superfund Site Professional Services		000000000000000000000000000000000000000	\$2,628.50
Professional Services		ng manadamanan	\$2,628.50
Employee Type			
	Hours	Rate	Amount
Associate			450
Soderberg, Keir S			\$181.95
Sr. Project Hydrogeologist/Sci			

Prj. Hydrogeologist/Sci.	
Karanovic, Zdravka	\$2,128.80
Slawter, Kristen EM	\$1,530.08
Technician/Draftsperson	
Pekoske, Kristen M	\$154.20
Labor Subtotal	\$5,532.34

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Reimbursables

Activity/Vendor	Invoice	Date	Cost	Mult	Amount
Color copy 600 DPI					
ZEXP - Internal Project Charges	12312021	12/31/2021			\$1.75
In-House Reproduction Costs					
ZEXP - Internal Project Charges	12312021	12/31/2021			\$.12
Miscellaneous					
Pace Analytical Services, LLC	21100354675	11/10/2021			\$3,572.00
Pace Analytical Services, LLC	21100355752	11/17/2021			\$2,421.00
Reimbursable Subtotal				0000000	\$5,994.87
Item Subtotal				200000	\$11,527.21

007-01-10 - 0001AG-Lemberger Transport & Recycling Superfund Sites

Professional Services

Employee Type	Hours	Rate	Amount
Sr. Project Hydrogeologist/Sci			
Sorel, Dominique			\$219.62
Labor Subtotal		0000000000	\$219.62
Item Subtotal		oparational s	\$219.62

008-01-10 - 0001AH-Hedblum Industries Superfund Site

Professional Services

Employee Type	Hours	Rate	Amount
Principal	40 0000 40 00000 40 00000 40 0000 40 0000 40 0000 40 0000 40 0000 40 0000 40 0000 40 00		
Tonkin, Matthew J			\$346.95
Associate			
Neville, Christopher			\$363.90
Sr. Project Hydrogeologist/Sci			
Sorel, Dominique			\$3,001.40
Technician/Draftsperson			
Pekoske, Kristen M			\$77.10
or Subtotal) ingregorophiques	\$3,789.36

Item Subtotal	\$3,789.36
009-00-10 - 0001AI-SE Rockford	

Professional Services

Employee Type	Hours	Rate	Amount
Principal			
Tonkin, Matthew J			\$2,486.48
Sr. Hydrogeologist/Sci.			
Bedekar, Vivek S			\$403.72
			Page 3 of 7

Project 1725 EPA R5: Hydrogeologic Synthesis & Modeling Support		In	voice 23970
Sr. Project Hydrogeologist/Sci		110	VOICE 23970
Sorel, Dominique			\$4,172.68
Prj. Hydrogeologist/Sci.			Ψ+,172.00
Cousins, S. James	_		\$3,858.45
Karanovic, Zdravka			\$4,989.38
Shannon, Rachel			\$3,725.40
			φ3,723.40
Sr. Staff Hydrogeologist/Sci.			¢2 292 50
O'Connell, Matthew T			\$3,383.50
Staff Hydrogeologist/Sci.			0400.54
Adams, Glen			\$103.54
Technician/Draftsperson			A. = 0.40
Pekoske, Kristen M	<u>_</u> _	00000000	\$173.48
Labor Subtotal		959000	\$23,296.65
Item Subtotal			\$23,296.65
010-00-10 - 0001AJ-Forest Waste Superfund Site			\$23,296.65
			\$23,296.65
010-00-10 - 0001AJ-Forest Waste Superfund Site Professional Services <u>Employee Type</u>	Hours	Rate	\$23,296.65 Amount
010-00-10 - 0001AJ-Forest Waste Superfund Site Professional Services Employee Type Principal	Hours	Rate	Amount
010-00-10 - 0001AJ-Forest Waste Superfund Site Professional Services Employee Type Principal Tonkin, Matthew J	Hours	Rate	
010-00-10 - 0001AJ-Forest Waste Superfund Site Professional Services Employee Type Principal Tonkin, Matthew J Sr. Hydrogeologist/Sci.	Hours	Rate	Amount \$1,850.40
010-00-10 - 0001AJ-Forest Waste Superfund Site Professional Services Employee Type Principal Tonkin, Matthew J Sr. Hydrogeologist/Sci. Mihm, Kathleen	Hours	Rate	Amount
010-00-10 - 0001AJ-Forest Waste Superfund Site Professional Services Employee Type Principal Tonkin, Matthew J Sr. Hydrogeologist/Sci.	Hours	Rate	\$1,850.40 \$1,049.68
010-00-10 - 0001AJ-Forest Waste Superfund Site Professional Services Employee Type Principal Tonkin, Matthew J Sr. Hydrogeologist/Sci. Mihm, Kathleen	Hours	Rate	Amount \$1,850.40
O10-00-10 - 0001AJ-Forest Waste Superfund Site Professional Services Employee Type Principal Tonkin, Matthew J Sr. Hydrogeologist/Sci. Mihm, Kathleen Sr. Project Hydrogeologist/Sci	Hours	Rate	\$1,850.40 \$1,049.68
O10-00-10 - 0001AJ-Forest Waste Superfund Site Professional Services Employee Type Principal Tonkin, Matthew J Sr. Hydrogeologist/Sci. Mihm, Kathleen Sr. Project Hydrogeologist/Sci Karanovic, Marinko	Hours	Rate	\$1,850.40 \$1,049.68 \$366.02
O10-00-10 - 0001AJ-Forest Waste Superfund Site Professional Services Employee Type Principal Tonkin, Matthew J Sr. Hydrogeologist/Sci. Mihm, Kathleen Sr. Project Hydrogeologist/Sci Karanovic, Marinko Sorel, Dominique	Hours	Rate	\$1,850.40 \$1,049.68 \$366.02
O10-00-10 - 0001AJ-Forest Waste Superfund Site Professional Services Employee Type Principal Tonkin, Matthew J Sr. Hydrogeologist/Sci. Mihm, Kathleen Sr. Project Hydrogeologist/Sci Karanovic, Marinko Sorel, Dominique Prj. Hydrogeologist/Sci.	Hours	Rate	\$1,850.40 \$1,049.68 \$366.02 \$366.02
O10-00-10 - 0001AJ-Forest Waste Superfund Site Professional Services Employee Type Principal Tonkin, Matthew J Sr. Hydrogeologist/Sci. Mihm, Kathleen Sr. Project Hydrogeologist/Sci Karanovic, Marinko Sorel, Dominique Prj. Hydrogeologist/Sci. Shannon, Rachel	Hours	Rate	\$1,850.40 \$1,049.68 \$366.02 \$366.02

Technician/Draftsperson

Pekoske, Kristen M			\$115.65
Labor Subtotal		000000000	\$5,097.45
Item Subtotal		9000000	\$5,097.45
011-01-10 - 0001AK - Motor Wheel Tire Disposal			
Professional Services			
Employee Type Principal	Hours	Rate	Amount
Rafferty, Michael T			\$462.60
			Page 4 of 7

Project 1725 EPA R5: Hydrogeologic Synthesis & Modeling Support		Inv	oice 23970
Tonkin, Matthew J			\$3,122.55
Sr. Project Hydrogeologist/Sci			
Karanovic, Marinko			\$73.20
Sorel, Dominique			\$4,026.28
Prj. Hydrogeologist/Sci.			
Karanovic, Zdravka			\$3,126.68
Staff Hydrogeologist/Sci.			
Adams, Glen			\$155.31
Technician/Draftsperson			
Pekoske, Kristen M			\$134.92
Labor Subtotal		25000291	\$11,101.56
Item Subtotal		anahaa	\$11,101.56
012-02-10 - 0001AL - Verona Wells - OU2			
Professional Services			
Employee Type	Hours	Rate	Amount
Employee Type Associate	Hours	Rate	Amount
	Hours	Rate	\$2,001.45
Associate	Hours	Rate	APPRIATOTATO DA PARA PORTATO PARA PORTATO.
Associate Spiliotopoulos, Alexandros	Hours	Rate	APPRIATOTATO DA PARA PORTATO PARA PORTATO.
Associate Spiliotopoulos, Alexandros Sr. Project Hydrogeologist/Sci	Hours	Rate	\$2,001.45
Associate Spiliotopoulos, Alexandros Sr. Project Hydrogeologist/Sci Sorel, Dominique	Hours	Rate	\$2,001.45
Associate Spiliotopoulos, Alexandros Sr. Project Hydrogeologist/Sci Sorel, Dominique Prj. Hydrogeologist/Sci.	Hours	Rate	\$2,001.45 \$146.41
Associate Spiliotopoulos, Alexandros Sr. Project Hydrogeologist/Sci Sorel, Dominique Prj. Hydrogeologist/Sci. Karanovic, Zdravka	Hours	Rate	\$2,001.45 \$146.41
Associate Spiliotopoulos, Alexandros Sr. Project Hydrogeologist/Sci Sorel, Dominique Prj. Hydrogeologist/Sci. Karanovic, Zdravka Technician/Draftsperson	Hours	Rate	\$2,001.45 \$146.41 \$864.82
Associate Spiliotopoulos, Alexandros Sr. Project Hydrogeologist/Sci Sorel, Dominique Prj. Hydrogeologist/Sci. Karanovic, Zdravka Technician/Draftsperson Pekoske, Kristen M	Hours	Rate	\$2,001.45 \$146.41 \$864.82 \$57.82
Associate Spiliotopoulos, Alexandros Sr. Project Hydrogeologist/Sci Sorel, Dominique Prj. Hydrogeologist/Sci. Karanovic, Zdravka Technician/Draftsperson Pekoske, Kristen M Labor Subtotal	Hours	Rate	\$2,001.45 \$146.41 \$864.82 \$57.82 \$3,070.52
Associate Spiliotopoulos, Alexandros Sr. Project Hydrogeologist/Sci Sorel, Dominique Prj. Hydrogeologist/Sci. Karanovic, Zdravka Technician/Draftsperson Pekoske, Kristen M Labor Subtotal Item Subtotal	Hours	Rate	\$2,001.45 \$146.41 \$864.82 \$57.82 \$3,070.52
Associate Spiliotopoulos, Alexandros Sr. Project Hydrogeologist/Sci Sorel, Dominique Prj. Hydrogeologist/Sci. Karanovic, Zdravka Technician/Draftsperson Pekoske, Kristen M Labor Subtotal Item Subtotal 013-01-10 - 0001AM - Hagen Farm	Hours	Rate	\$2,001.45 \$146.41 \$864.82 \$57.82 \$3,070.52
Associate Spiliotopoulos, Alexandros Sr. Project Hydrogeologist/Sci Sorel, Dominique Prj. Hydrogeologist/Sci. Karanovic, Zdravka Technician/Draftsperson Pekoske, Kristen M Labor Subtotal Item Subtotal 013-01-10 - 0001AM - Hagen Farm Professional Services		200000	\$2,001.45 \$146.41 \$864.82 \$57.82 \$3,070.52 \$3,070.52

Sr. Project Hydrogeologist/Sci		
Sorel, Dominique		\$439.23
Technician/Draftsperson		
Pekoske, Kristen M		\$77.10
Labor Subtotal		\$4,337.28
Item Subtotal	00000000	\$4,337.28

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014-01-10 - 0001AN - Springfield

Professional Services

Employee Type	Hours	Rate	Amount
Principal Principal	hannannannannannannannannannannannannann		Allioull mannamanamana
Andrews, Charles B			\$462.60
Sr. Project Hydrogeologist/Sci			
Perozo, Erica L. DiFilippo			\$439.23
Prj. Hydrogeologist/Sci.			
Shannon, Rachel			\$266.10
Staff Hydrogeologist/Sci.			
Nelson, Leah I			\$336.50
Technician/Draftsperson			
Pekoske, Kristen M			\$96.38
Labor Subtotal		993005	\$1,600.82
Item Subtotal		outstand	\$1,600.82
015-00-10 - 0001AO - Bendix			
Professional Services			
Employee Type	Hours	Rate	Amount
Principal			

Employee Type	Hours	Rate	Amount
Principal			
Rafferty, Michael T			\$3,469.50
Tonkin, Matthew J			\$2,486.48
Sr. Project Hydrogeologist/Sci			
Karanovic, Marinko			\$2,196.15
Perozo, Erica L. DiFilippo			\$12,664.46
Sorel, Dominique			\$1,464.10
Prj. Hydrogeologist/Sci.			
Cousins, S. James			\$1,729.65
Slawter, Kristen EM			\$199.58
Staff Hydrogeologist/Sci.			
Adams, Glen			\$2,407.30

Nelson, Leah I	\$1,397.79
Technician/Draftsperson	
Pekoske, Kristen M	\$250.58
Rutledge, Devon R	\$77.10
Labor Subtotal	\$28,342.71
Item Subtotal	\$28,342.71
Invoice Amount	\$101,234.66

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Project Summary

Budget	Previously Billed	Current Billing	Billed To Date	Budget Remaining
\$2,621,272.47	\$1,152,616.07	\$101,234.66	\$1,253,850.73	\$1,367,421.74

Matthew J. Tonkin

Project Manager

S.S. Papadopulos & Associates, Inc. 505 N. Pine St., Williamsfield, IL 61489-9517

Web: www.sspa.com // Email: matt@sspa.com // Skype: mattsspa

Office: (309) 616 9060 // Cell: (508) 815-9886



S.S. PAPADOPULOS & ASSOCIATES, INC. ENVIRONMENTAL & WATER-RESOURCE CONSULTANTS

Site Specific Detail Report

EPA TASK ORDER #: 68HE0520F0029

GSA Contract #GS-10F-0462M

Inv. #23970

Reporting Period: 11 February 2020 through December 31, 2021

subClin	Site/Project Title	Job Number			Current Charges	(Cumulative Charges	
		SSID	Action Code	OU	In	v. #23970		
0001AA	Ottawa Township Flat Glass Superfund Alternative Site	B5A7	NK	03	\$	2,205.97	\$	65,965.23
0001AA	Ottawa Township Flat Glass Superfund Alternative Site	B5A7	NK	04	\$	2,205.98	\$	65,965.23
0001AB	Union Carbide Corporation Superfund Site	05F4	BF	02	\$	441.00	\$	65,420.76
0001AC	St. Regis Paper Company Superfund Site	05J2	ОМ	00	\$	1,370.03	\$	74,289.37
0001AD	Pristine Superfund Site	0556	ME	05	\$	2,628.50	\$	279,230.91
0001AE	Chemical Recovery Systems Superfund Site	0521	BE	01	\$	11,527.21	\$	162,672.77
0001AE	Chemical Recovery Systems Superfund Site	0521	BE	02	\$	-	\$	1,425.36
0001AF	Lemberger Landfill Superfund Sites	053E	FE	00	\$	=	\$	322.34
0001AG	Lemberger Transport & Recycling Superfund Site	05J4	FE	00	\$	219.62	\$	7,562.15
0001AH	Hedblum Industries Superfund Site	05E9	ME	01	\$	3,789.36	\$	50,963.87
0001AI	SE Rockford Superfund Site	05DK	ОМ	02	\$	23,296.65	\$	115,795.27
0001AJ	Forest Waste Superfund Site	05D5	BF	02	\$	5,097.45	\$	140,061.96
0001AK	Motor Wheel Disposal Superfund Site	0585	BF	01	\$	11,101.56	\$	70,766.02
0001AL	Verona Well Field Superfund Site	0551	TA	01	\$	=	\$	=
0001AL	Verona Well Field Superfund Site	0551	TA	02	\$	3,070.52	\$	30,478.35
0001AM	Hagen Farm Superfund Site	053C	ME	02	\$	4,337.28	\$	20,888.15
0001AN	Springfield Township Dump Superfund Site	05A7	ОМ	01	\$	1,600.82	\$	37,071.51
0001AO	Bendix Superfund Site	05AS	TA	01	\$	28,342.71	\$	64,971.48
				Total	\$ 1	01,234.66	\$	1,253,850.73

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1725_summary table thru 123121.xlsx



S.S. PAPADOPULOS & ASSOCIATES, INC.

ENVIRONMENTAL & WATER-RESOURCE CONSULTANTS

EPA Region 5 Support Description of Services Performed

Period of Performance: Through December 2021

1725-001-01-10 0001AA-Ottawa Township Flat Glass Superfund Alternative Site

Services were performed by the following SSP&A staff:

Staff	Hours
Christopher Neville	
Dominique Sorel	
Matthew Tonkin	

During this period, C. Neville joined a teleconference to plan responses to EPA review comments and reviewed responses to EPA comments. D. Sorel prepared and finalized a memo addressing EPA's questions and comments on Draft A of the report. M. Tonkin joined an internal call with D. Sorel and C. Neville regarding questions and comments from EPA and outline of response for EPA. He also reviewed the draft and corresponded with D. Sorel regarding editing and the draft content marker.

1725-002-01-10 0001AB-Union Carbide Corporation Superfund Site

Services were performed by the following SSP&A staff:

Staff	Hours
Alexandros Spiliotopoulos	
Kristen Pekoske	

During this period, A. Spiliotopoulos reviewed the monthly report, corresponded with C. Moynihan on the project status, and compiled comments for the 2020 annual report for C. Moynihan. K. Pekoske worked on the monthly report.

1725-003-01-10 0001AC-St. Regis Paper Company Superfund Site

Staff	Hours

Alexandros Spiliotopoulos	
Kristen Pekoske	

During this period, A. Spiliotopoulos finalized comments on the Porewater Report and commented on the OU3 well placement. He reviewed well placement issues, joined a call with L. Patterson on the OU3 well placement report and worked on the draft technical memo on system shutdown for L. Patterson. He also responded to EPA questions on the OU3 well installation report. K. Pekoske worked on the monthly report.

1801 ROCKVILLE PIKE, SUITE 220, ROCKVILLE, MARYLAND 20852-1649 • TEL. (301) 718-8900 FAX (301) 718-8909 www.sspa.com • e-mail: mtonkin@sspa.com

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1725-004-01-10 0001AD-Pristine Superfund Site Systems

Staff	Hours
Erica Perozo	
Zdravka Karanovic	
Glen Adams	
Kristen Pekoske	

During this period, E. Perozo worked on data compilation and database additions, compiling data for 1,4-dioxane plume mapping. She joined a call with EPA regarding the 1,4-dioxane plume map review and joined a call with EPA and the PRP group. Z. Karanovic worked on plume mapping. G. Adams produced figures of the 1,4-Dioxane plumes for E. Perozo. K. Pekoske worked on the monthly report and joined a follow up call.

1725-005-01-10 0001AE-Chemical Recovery Systems Superfund Site

Staff	Hours
Keir Soderberg	
Erica Perozo	
Dominque Sorel	
Zdravka Karanovic	
Kristen Slawter	
Kristen Pekoske	

During this period, K. Soderberg reviewed and commented on the data validation memo and discussed it with E. Perozo and D. Sorel. E. Perozo worked on QA of the data validation report. D. Sorel reviewed the PFAS data validation report, reviewed and finalized the data validation memo with K. Soderberg and E. Perozo, and transmitted the memo to EPA. She also worked on data validation, communicated with EPA and Pace Laboratory, addressed questions from EPA, submitted data for scoring, and received and submitted data for the database update. Z. Karanovic updated the database. K. Slawter worked on data validation and the data validation memo. K. Pekoske formatted and reviewed the data validation memo and worked on the monthly report.

007-01-10 - 0001AG-Lemberger Transport & Recycling Superfund Sites

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Stan	Hours
Dominque Sorel	

During this period, D. Sorel received documents and initiated review of the PFAS sampling report.

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1725-008-01-10 0001AH-Hedblum Industries Superfund Site

Staff	Hours	
Christopher Neville		
Dominque Sorel		
Matthew Tonkin		
Kristen Pekoske		

During this period, C. Neville joined a discussion regarding the proposed duration of shutdown of the SVE System. D. Sorel joined calls with agencies to discuss questions on the VI workplan comments and worked on the memo response to SPX November 24 email questions, including obtaining references, reviewing references and guidance. She worked on the vapor treatment stabilization question, communicated with C. Neville and M. Rafferty, and joined the biweekly call with the agencies, PRP and consultants. M. Tonkin reviewed the technical memo response to SPX November 24 email questions, sent comments and edits to D. Sorel for incorporation, and discussed the comments with her. K. Pekoske worked on the monthly report.

1725-009-01-10 0001AI-SE Rockford

Staff	Hours	
Vivek Bedekar		
Dominique Sorel		
Glen Adams		
Matthew Tonkin		
S. James Cousins		
Rachel Shannon		
Matthew O'Connell		
Zdravka Karanovic		
Kristen Pekoske		

During this period, V. Bedekar prepared a one-page writeup describing the site model. D. Sorel worked on trend maps - providing instructions for updating the legend, prepared tables, updated the appendix, and worked on the report text. She also worked on data analysis, including UW pumping timeseries plots, and water-level and concentration correlation; coordinated report and figure preparation; and worked on water-level mapping. Finally, she sent draft tables, figures, and appendices to EPA; joined a review call with EPA; followed up on the water-level mapping call with M. Tonkin and R. Shannon:

and updated tables and text. G. Adams converted coordinates to UTM for Z. Karanovic. M. Tonkin joined internal meetings; reviewed the draft work product; corresponded with D. Sorel on trends, WL mapping, and hydrostratigraphy; and reviewed data and the draft report with D. Sorel, with a focus on trends and locations of increases. He met with V. Bedekar, R. Shannon, and D. Sorel on pumping effects, discussing groundwater model vs. water-level mapping approaches, and further reviewed the draft report from D. Sorel. He also reviewed historical pumping-rate data, locations, and compared with other historical stressors - river stage, water levels, etc. - as contributing factors to concentration changes. M. Tonkin discussed modeling steps with V. Bedekar, worked through the development of the simple model and its application as a drift to demonstrate flow changes, reviewed plume maps,

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reviewed water-level data, trend calculations, new river-stage graphic, and parts of write-ups. Finally, he corresponded with the project team on elements needed in draft report for EPA, commenced review of the compiled draft report, and obtained and started integrating the modeling section into the report. S.J. Cousins worked on spatial analysis/figures. R. Shannon worked on a data summary and water-level maps. She also worked on plume maps (curvilinear coordinates) and joined a call with EPA. M. O'Connell updated trend tables, figures, and kriging data input; joined a call with EPA; and worked on water-level and climate data plots and normals. Z. Karanovic joined a meeting, updated and worked on the database, and provided data sources for the report. K. Pekoske formatted tables and worked on the monthly report.

1725-010-01-10 001AJ-Forest Waste Superfund Site

Staff	Hours	
Marinko Karanovic		
Leah Nelson		
Matthew Tonkin		
Rachel Shannon		
Kathleen Mihm		
Dominique Sorel		
Glen Adams		
Kristen Pekoske		

During this period, M. Karanovic finalized the GWD project file and sent it to Dave Wilson (EPA). He also joined a conference call with EPA and presented the GWD visualization. L. Nelson updated the EnviroInsite file and wrote a memo, adding the brown silt/clay layer. She joined a call with EPA and checked the deep sand. M. Tonkin worked with staff to prepare for the presentation to EPA on the status of the 3D geology review, plumes, time-series, and water-level maps. He also worked on RAO ideas to follow up with the RP; joined calls and corresponded with EPA and internal staff on monitoring well locations and data gaps for remedy design and evaluation, joined a call with EPA to discuss data status, bedrock data gaps, and concerns regarding sand unit connectivity; and corresponded with EPA, K. Mihm, and R. Shannon on 3D plume data, geology, and final steps in the conceptual site model (CSM) update. He also reviewed the 3D geology, compiled vinyl chloride data, corresponded on possible data gaps, and corresponded with EPA on meeting minutes, annual report review, and RAOs. Finally, he attended a status report meeting with FWCC and followed up with EPA regarding RAOs, drilling, and 3D geology. R. Shannon spent time on data and document review. K. Mihm joined a conference call; worked on GWD files, residential wells and sand/gravel, and vinyl chloride data; and

imported updated vinyl chloride data into GWD. D. Sorel participated in the monthly call and had a follow up discussion with M. Tonkin. She also reviewed a transmittal from EPA. G. Adams converted coordinates for K. Mihm. K. Pekoske worked on the monthly report.

1725-011-01-10 0001AK - Motor Wheel Tire Disposal

Staff	Hours	
Marinko Karanovic		
Dominique Sorel		

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Staff	Hours	
Zdravka Karanovic		
Glen Adams		
Michael Rafferty		
Matthew Tonkin		
Kristen Pekoske		

During this period, M. Karanovic assisted Z. Karanovic with GWD. D. Sorel worked with Z. Karanovic to prepare a draft presentation in preparation for the December semi-annual meeting and scheduled pre and post semi-annual meeting calls. She also communicated with EPA regarding reporting status, preparing for, attending and following up on the semi-annual meeting. Finally, she joined a call with EPA and State to follow up on the semi-annual meeting and sent final vapor intrusion meeting notes to EPA and the PRP group. Z. Karanovic prepared maps for the presentation. G. Adams spent time georeferencing and digitizing. M. Rafferty prepared notes on the call with Goodyear for the EPA call. M. Tonkin reviewed the data summary memo from Z. Karanovic, joined an internal meeting, prepared the slide deck review comments on modeling and the monitored natural attenuation (MNA) report in preparation for the semi-annual update meeting, and reviewed the provided PDF. He completed the draft slide deck summarizing report review and independent data review and presented the findings to EPA in advance of the RP call. Finally, he attended the semi-annual remedy evaluation / modeling / analysis presentation and meeting hosted by Goodyear and discussed major items following the meeting. K. Pekoske worked on the monthly report and joined a follow up call.

012-02-10 0001AL - Verona Wells - OU2

Staff	Hours
Alexandros Spiliotopoulos	
Dominique Sorel	
Zdravka Karanovic	
Kristen Pekoske	

During this period, A. Spiliotopoulos worked on draft plume maps, dataset management, database setup and updates, and file compilation. He also worked on water-level/water-quality data compilation, review, and mapping. D. Sorel communicated with A. Spiliotopoulos regarding data analysis and plume mapping files. Z. Karanovic updated the database. K. Pekoske worked on the monthly report.

1725-013-01-10 0001AM - Hagen Farm

3

Staff	Hours	
Alexandros Spiliotopoulos		
Dominique Sorel		
Kristen Pekoske		

During this period, A. Spiliotopoulos reviewed and commented on the system shutdown, reviewed the regulatory framework and historical data, and documented his opinions on the system shutdown and rebound test. He also reviewed the site hydrogeology, corresponded with D. Dougherty on site

Page 6

background, worked on statistical evaluations and data assessment, and worked on a technical memo and summary PowerPoint for a discussion with S. Sullivan. Additionally, he finalized the draft technical memo on the system shutdown, joined a call with S. Sullivan on shutdown/rebound test, and prepared slides for review. Finally, he conducted statistical evaluations of historical data for the system shutdown evaluation. D. Sorel communicated with A. Spiliotopoulos regarding a rebound test evaluation, worked on GEMS data, and provided well construction information. She also joined a call with EPA and A. Spiliotopoulos. K. Pekoske worked on the monthly report.

1725-014-01-10 0001AN - Springfield

Staff	Hours	
Erica Perozo		
Rachel Shannon		
Leah Nelson		
Charles Andrews		
Kristen Pekoske		

During this period, E. Perozo worked on reports, reviewed the groundwater cross-section, and joined a call with EPA. R. Shannon worked on the CSM making edits to the cross-section figure. She also joined a call with EPA and worked on water-level maps. L. Nelson worked on an EnviroInsite schematic. C. Andrews prepared a cross-section with potentiometric contours. K. Pekoske worked on the monthly report.

<u>1725-015-01-10 0001AO - Bendix</u>

Staff	Hours	
Erica Perozo		
S. James Cousins		
Leah Nelson		
Marinko Karanovic		
Dominique Sorel		
Kristen Slawter		
Glen Adams		
Michael Rafferty		
Matthew Tonkin		
Kristen Pekoske	R CO	

TRIBUTI I OROBRO	3.23	
Devon Rutledge		

During this period, E. Perozo made edits to the hydraulic gradient memo, joined a call with EPA regarding ACLs, and worked on the MNA and the CSM memo. She also reviewed the CSM data, reviewed documents, worked on data evaluation and compilation for 3D plumes, and joined a call with M. Rafferty on the vapor intrusion memo. Finally, she worked on plots for the vapor intrusion memo and reviewed the memo, reviewed the long-term monitoring (LTM) report, and wrote a memo on comments about the proposed LTM plan. S.J. Cousins worked on spatial analysis/figures and geocoding. L. Nelson communicated with E. Perozo, added boring logs into the database, and worked

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on boring log data entry. M. Karanovic discussed plume mapping with Erica, worked on 3D plume mapping in GWD, reviewed indicator kriging results, and wrote a kriging memo. D. Sorel provided support for the risk evaluation and communicated with E. Perozo, M. Tonkin and EPA, K. Slawter worked on the MNA memo. G. Adams spent time georeferencing and digitizing, acquiring and processing DEM, and reprojecting aerial imagery. He helped E. Perozo with loading well data and kriged data into GWD, acquired and processed bathymetry data, and dealt with VCS conversion issues. He also worked on spatial analysis for the bathymetry data and worked on GWD figures/edits. M. Rafferty reviewed documents and reports, joined a call with A. Holbrow and E. Perozo, and worked on the soil vapor/vapor intrusion memo. M. Tonkin reviewed the technical memos; corresponded with E. Perozo on documents, contents, data analyses, and ACLs; and joined a netmeeting to review cleanup levels, application of standards, and trend plots, also RI and post RI data including trenches. He evaluated the MNA - WC report review, reviewed the hydraulic gradient memo and reviewed and edited the CSM memo. Additionally, M. Tonkin met with E. Perozo to discuss trend analyses, technical memo statuses, review of data, data formats, and VI concerns; and reviewed and edited the MNA technical memo for EPA. K. Pekoske formatted and compiled the hydraulic gradient memo and the appendices. She also worked on the monthly report and joined a follow up call. D. Rutledge worked on data entry for E. Perozo.

S.S. PAPADOPULOS & ASSOCIATES, INC.

Dominique Jord

Summary completed by:

Dominique Sorel Alternate Project Manager Summary reviewed by:

Matthew Tonkin Project Manager

December 1, 2021 - December 31, 2021

Expense	Expense Code 1901 - Color copies 600 DPI			
=====	Project Number	Number of Copies		
	1623-1-408 1725-005 6030 899		28 7 757	
	Plank		6	
Expense	e Code 1901 - Color copies 240	00 DPI 8.5X11	@\$1.25	
=====	Project Number	Number of Copies		
Expense	e Code 1901 - Color copies 240	00 DPI 11X17 	@\$2.00	
=====	Project Number	•		
Expens	@\$10 per sq			
=====	Project Number Number	of Plots Sq. Ft		

IN HOUSE REPRODUCTION COSTS FOR BILLING PERIOD 12 December 01, 2021 - December 31, 2021

SSP-	1623-1-408	0.72
SSP-	1725-005	0.12
SSP-	6030	0.00
SSP-	Plank	2.52
SSP-	0899	81.12



INVOICE

Pace Analytical Services, LLC 41-1821617 Pace Analytical National 62-0814289 Pace Analytical Gulf Coast 45-4027089 Pace Analytical Services, LLC

1700 Elm Street Minneapolis, MN 55414 Phone: (612)607-1700

Invoice Number: 21100354675

Date: 11/10/2021

Total Amount Due: \$3,572.00

Please Remit To:

Pace Analytical Services, LLC

P.O. Box 684056

Chicago, IL 60695-4056

Client Number/Client ID	Purchase Order No	Pace Project Mgr	Terms**	Page
10-117630 / S.S. Papadop		Kirsten Hogberg	Net 30 Days	1

Client Project: 1725: CRS
Pace Project No: 10584325

Client Name: S.S. Papadopulos & Associates, Inc. Sample Received: 10/21/2021

Report Sent To: Dominique Sorel, S.S. Papadopulos & Associates, Inc.

Comments:

Sold To:

Accounts Payable

7944 Wisconsin Avenue

Bethesda, MD 20814

S.S. Papadopulos & Associates, Inc.

ANALYTICAL CHARGES					
Quantity Unit	Description	Method	Matrix	Price	Total
1 Ea	Environmental Impact Fee	Miscellaneous Charges	Drinking Water	\$0.00	\$0.00
13 Ea	PFA18 537.1 Drinking Water	EPA 537.1	Drinking Water	\$269.00	\$3,497.00
1 Ea	PFAS DI Water (4L)	Miscellaneous Charges	Drinking Water	\$75.00	\$75.00
11 Ea	Sample Disposal	Miscellaneous Charges	Drinking Water	\$0.00	\$0.00
				Analytical Subtotal	\$3,572.00

Total Number of Charges 26

Total Invoice Amount \$3,572.00

If you have any questions, please contact Kirsten Hogberg at Pace. Phone: (612)607-1700 Email: kirsten.hogberg@pacelabs.com

Page 1 of 1

**1.5% MONTHLY FINANCE CHARGE ASSESSED AFTER 30 DAYS OR TERMS OF CONTRACT. PACE RESERVES THE RIGHT TO SURCHARGE ON CREDIT CARD PAYMENTS BASED ON CARD TYPE AND ZIP CODE. PLEASE REFERENCE THE INVOICE NUMBER ON ALL REMITTANCE ADVICE.

AN EQUAL OPPORTUNITY EMPLOYER

Please complete and return copy of invoice with your payment.

INVOICE TOTAL	\$3,572.00
Amount Paid: \$	
Check No:	
1	

Customer No: 10-117630 Invoice No: 21100354675



INVOICE

Pace Analytical Services, LLC 41-1821617 Pace Analytical National 62-0814289 Pace Analytical Gulf Coast 45-4027089 Pace Analytical Services, LLC

1700 Elm Street Minneapolis, MN 55414 Phone: (612)607-1700

Invoice Number: 21100355752

Date: 11/17/2021

Total Amount Due: \$2,421.00

Client Name: S.S. Papadopulos & Associates, Inc.

Please Remit To:

Pace Analytical Services, LLC

P.O. Box 684056

Chicago, IL 60695-4056

Client Number/Client ID	Purchase Order No	Pace Project Mgr	Terms**	Page
10-117630 / S.S. Papadop		Kirsten Hogberg	Net 30 Days	1

Client Project: 1725: CRS
Pace Project No: 10584555

Sample Received: 10/22/2021

Report Sent To: Dominique Sorel, S.S. Papadopulos & Associates, Inc.

Comments:

Sold To:

Accounts Payable

7944 Wisconsin Avenue

Bethesda, MD 20814

S.S. Papadopulos & Associates, Inc.

ANALYTICAL CHARGES					
Quantity Unit	Description	Method	Matrix	Price	Total
1 Ea	Environmental Impact Fee	Miscellaneous Charges	Drinking Water	\$0.00	\$0.00
9 Ea	PFA18 537.1 Drinking Water	EPA 537.1	Drinking Water	\$269.00	\$2,421.00
9 Ea	Sample Disposal	Miscellaneous Charges	Drinking Water	\$0.00	\$0.00
				Analytical Subtotal	\$2,421.00

Total Number of Charges 19

Total Invoice Amount \$2,421.00

If you have any questions, please contact Kirsten Hogberg at Pace. Phone: (612)607-1700 Email: kirsten.hogberg@pacelabs.com

Page 1 of 1

**1.5% MONTHLY FINANCE CHARGE ASSESSED AFTER 30 DAYS OR TERMS OF CONTRACT. PACE RESERVES THE RIGHT TO SURCHARGE ON CREDIT CARD PAYMENTS BASED ON CARD TYPE AND ZIP CODE. PLEASE REFERENCE THE INVOICE NUMBER ON ALL REMITTANCE ADVICE.

AN EQUAL OPPORTUNITY EMPLOYER

Please complete and return copy of invoice with your payment.

INVOICE	TOTAL	\$2,421.00
Amount Paid:	\$	
Check No:		
Customer No:	10-117630	Invoice No: 21100355752